

Engaging Communities for Energy and Water: The Community Weatherization Coalition



Utility Advisory Board meeting
February 13, 2019

Community Weatherization Coalition

Saving Money and Resources, Together:

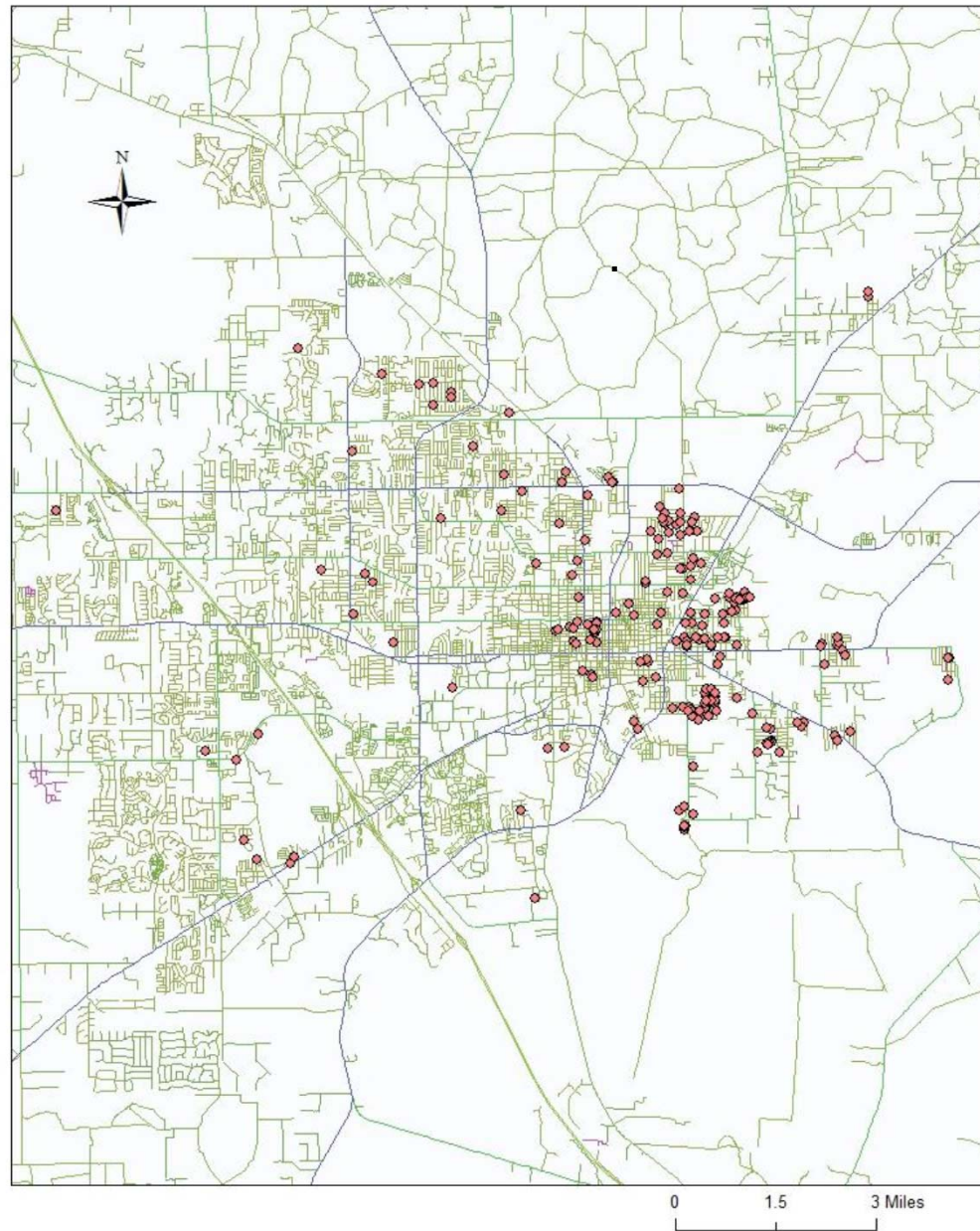
<https://youtu.be/I30BZPCK6zI>

From 2008-2018:

- over 900 homes served: over 2,000 residents
- over 200 volunteer energy coaches trained
- hundreds of thousands of \$\$ saved
- millions of kilowatt hours of energy and tens of millions of gallons of water saved



CWC Home Audit Locations, 2010 - 2016





What is a CWC Home energy tune-up?

CWC volunteer energy coaches spend 2-4 hours inspecting the whole home:

- Building envelope, major appliances, lighting, and water consumption.
- Review client's utility history, discuss usage and charges.
- Install energy/water savers: efficient showerheads and lighting, faucet aerators, pipe insulation, outlet gaskets, etc.
- Tips to reduce utility expenses, improve safety, and increase comfort.
- Follow-up with a detailed report and recommendations.
- Partner with other agencies to assist with home repair, upgrading appliances, and carry out next-level retrofits energy upgrades (added attic insulation, small repairs)





Some of CWC's Current Partners

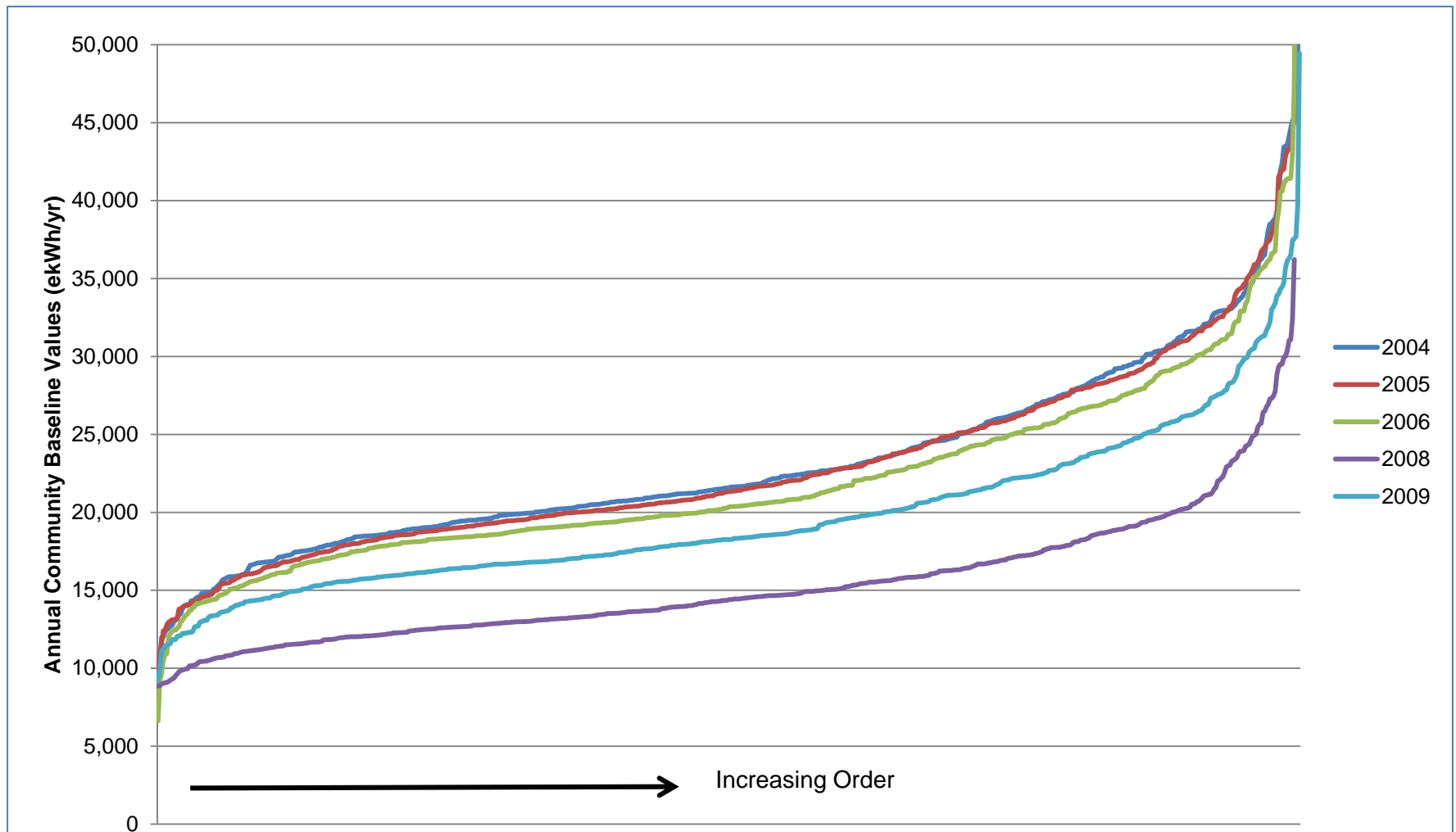


Measures of CWC Impact

- UF Program for Resource Efficient Communities (PREC) carries out analysis
- GRU provides open access to utility data through a website, but also shares more complete electronic files with PREC: Monthly household level water, natural gas and electricity consumption for the entire service area.
- County property appraisers' database provides age, heated sqft, no. of bedrooms and baths.



Community baselines shift with weather over time



2010-2015 Tune-Up Impacts

One year after CWC tune-ups.....

Mean household water savings in 113 homes:

- 9% reduction
- 6,200 gallons conserved

Mean household energy savings (including electricity and gas) in 124 homes:

- 10.6% reduction
- Cost savings = \$255 per home per year



Greater Duval neighborhood

- Home energy/water tune-ups were carried out in 103 homes in Greater Duval neighborhood over the past 10 years.
- Duval homes that had a CWC tune-up saved an average of **\$313** in utility expenses the subsequent year.
- Multiplied by 103 homes, this figure suggests that Duval residents saved approximately **\$32,239 in utility expenses each subsequent year due to CWC tune-ups.**

Location	Number of Homes	Percent Owner Occupied	Year Built	Heated Area	Home Just Value (2010)	Water Use (Gal)	Energy Use (ekWh)	Total Cost Savings
Duval	103	88%	1967	1230	\$ 76,100	58,600	15,800	313
Other GRU	131	81%	1965	1320	\$ 96,300	56,600	21,600	230

Persistence in Savings

2010-2012 Audits in 2016

Usage	Water (gallons)	% Water Savings	Energy (ekWh)	% Energy Savings
Mean Pre-Usage	59,000	-	15,800	-
Mean Post-Usage	47,400	-	13,095	-
Median Savings	9,300	19.6 %	2,580	14%
Mean Savings	11,600	24.4 %	2,140	16%

Cost Savings	Water Savings	Energy Savings	Total Savings	Est. Total Utility Bill	% Savings (of post yr. Utility Bill)
Median Savings	\$ 36	\$ 289	\$ 351	\$ 1,928	18%
Mean Savings	\$ 41	\$ 312	\$ 375	\$ 1,957	19%

Carbon Footprint

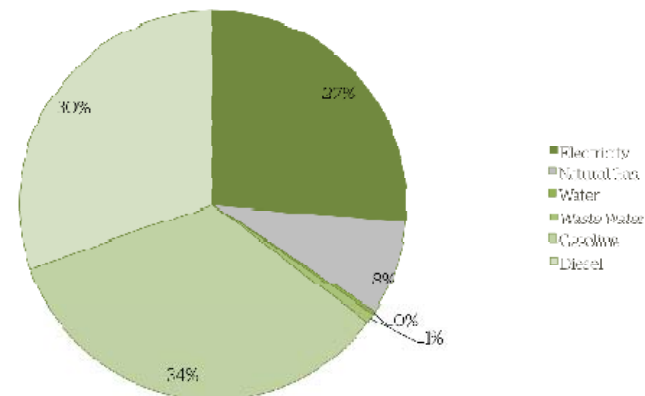


Sample Client

1234 W University Avenue
Gainesville, FL 32601

Electricity:	X kWh	■	X tCO ₂ e
Water:	X kGal	■	X tCO ₂ e
Waste Water:	X kGal	■	X tCO ₂ e
Gasoline:	X kGal	■	X tCO ₂ e
Diesel:	X kGal	■	X tCO ₂ e
<hr/>			
Total:		■	18.12 tCO ₂ e

Annual Carbon Emissions in Tons of CO₂e



Of setting X tons of CO₂e per year is equivalent to:



X

vehicles taken
off the road



X

incandescents
switched to LEDs



X

tree saplings
grown for 10 years

*Values sourced from the EPA's Greenhouse Gas Equivalencies Calculator

For More Information....



- 45-minute UF PIE Center Webinar, recorded on April 30, 2018: <https://www.youtube.com/watch?v=bxjl4N-DexY>
- APPA Webinar: November 29, 2018, 2:00 pm

Replication of the CWC model in other counties

*“We are SO grateful for all your help, resources, and support! When I think back to our first call and how impressed I was with your program (but a little intimidated) I really didn’t think we would get to this point. But thanks to your willingness to share your materials and experiences so openly, as well as your generosity with your time and expertise, we made it happen!
....Your impact is now helping low income Families across county lines!”*

Lee-Hayes Byron

Director, Sarasota County UF/IFAS Extension and Sustainability
Sept. 29, 2018



Sarasota County, Florida’s 13 trained volunteers have already conducted sweeps at over 30 affordable housing units.

Current Goals

- **Increase impact by 50% in 2019**, from 100 to 150 tune-ups/year;
- **Transition to tablets** from paper forms to improve efficiency and reporting;
- **Deepen impact** through follow-up energy upgrades in 18-20 homes;
- **Sustain current level of funding for 2020-2023** to support these goals.



2019 Major Funding Sources

Source	Amount
GRU contract for 120 tune-ups (in GRU Electric Territory)	\$35,000
GRU contract for 12 retrofits	\$15,000
UF Office of Sustainability grant	\$59,000
Other sources (Foundations, donations, sponsors, fees)	~\$50,000
Total	~\$160,000



COMMUNITY
WEATHERIZATION
COALITION

**Saving money and
resources, together.**

communityweatherization.org

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